POSEIDON SODIUM EXTRACTOR

Extract sodium and save on nutrients and water

poseidon

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POSEIDON EXTRACTS SODIUM AT MINIMUM COSTS

As all growers know, low levels of sodium are essential for achieving optimum crop growth. We developed the Poseidon to extract sodium at lowest cost and with maximum effectiveness. It allows you to control the sodium concentration - and gives you the added bonus of making big savings on drain water and nutrients.

The Poseidon is available in three capacities, so that the system will be perfectly tailored to the size of the greenhouse and drain silos. The Poseidon can (nearly) always be connected directly to the clean drain silo without extra pre-filtration.

Problem solver

The conventional way to lower the sodium concentration in the drain silo is to discharge drain water and then top up the silo with rain water and/or reverse osmosis water. This reduces the concentration of sodium, but also results in discharge of expensive nutrients and plant protection products. The Poseidon solves this problem with smart membrane technology, which separates sodium, plant protection products and nutrients from the water flow. The nanofiltration membrane then allows sodium to pass through and holds back the nutrients, because sodium atoms are smaller than the nutrients and plant protection products.

ADVANTAGES OF THE POSEIDON

- Retains up to 50% of the nutrients
- Saves 80% of the drain water
- Includes integrated pre-filtration
- A proven concept
- Reduces environmental pollution
- Easy to install and use (plug-and-play)

Poseidon	Discharge capacity	Dimensions (l x w x h)
8-1	1.25 m^3/h	3.5 × 1.6 × 2.35 m
8-2	2.5 m^3/h	3.9 × 1.8 × 2.5 m
8-3	3.75 m^3/h	4.5 × 2.1 × 2.3 m

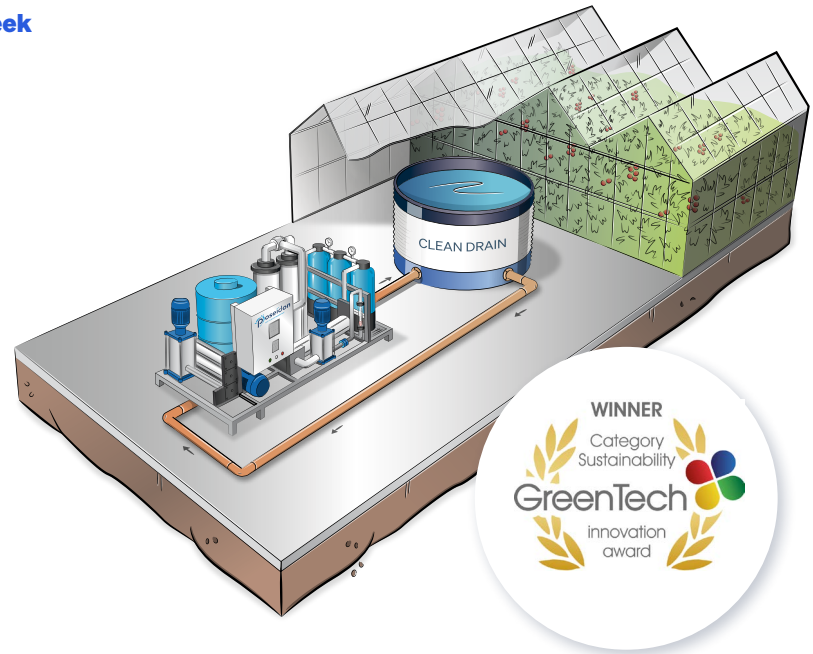
Plant protection products

To make absolutely sure that the Poseidon extracts all plant protection products, we use activated carbon to capture the last traces. Activated carbon is a specially processed form of carbon that can bind many different chemicals by adsorption.

Activated carbon adsorbs organic substances, such as plant protection products. The water is already very clean after the nanofiltration, which means the activated carbon lasts a long time and maintenance costs are low.

Example: Decrease in sodium per day in one week

POSEIDON 8-2 cap. 2.5 m³/h	
volume of silo 400 m³	sodium in mmol/l
Day 1	7.00
Day 2	6.14
Day 3	5.39
Day 4	4.75
Day 5	4.20
Day 6	3.73
Day 7	3.32
After 1 week	2.97



Description

The Poseidon is a compact water treatment system, consisting of ultrafiltration, nanofiltration and activated carbon. It is available in three standard capacities: 1.25 m³/h, 2.50 m³/h and 3.75 m³/h. The system is PLC-controlled and has two frequency controllers to optimise energy usage. The Poseidon has an internet connection that enables us to offer e.g. remote support.

Reverse osmosis system

Integrated in the Poseidon is a reverse osmosis (RO) system, which concentrates the water that is going to be discharged and reduces the amount by 80%. The clean RO water is then returned to the (clean) drain silo.

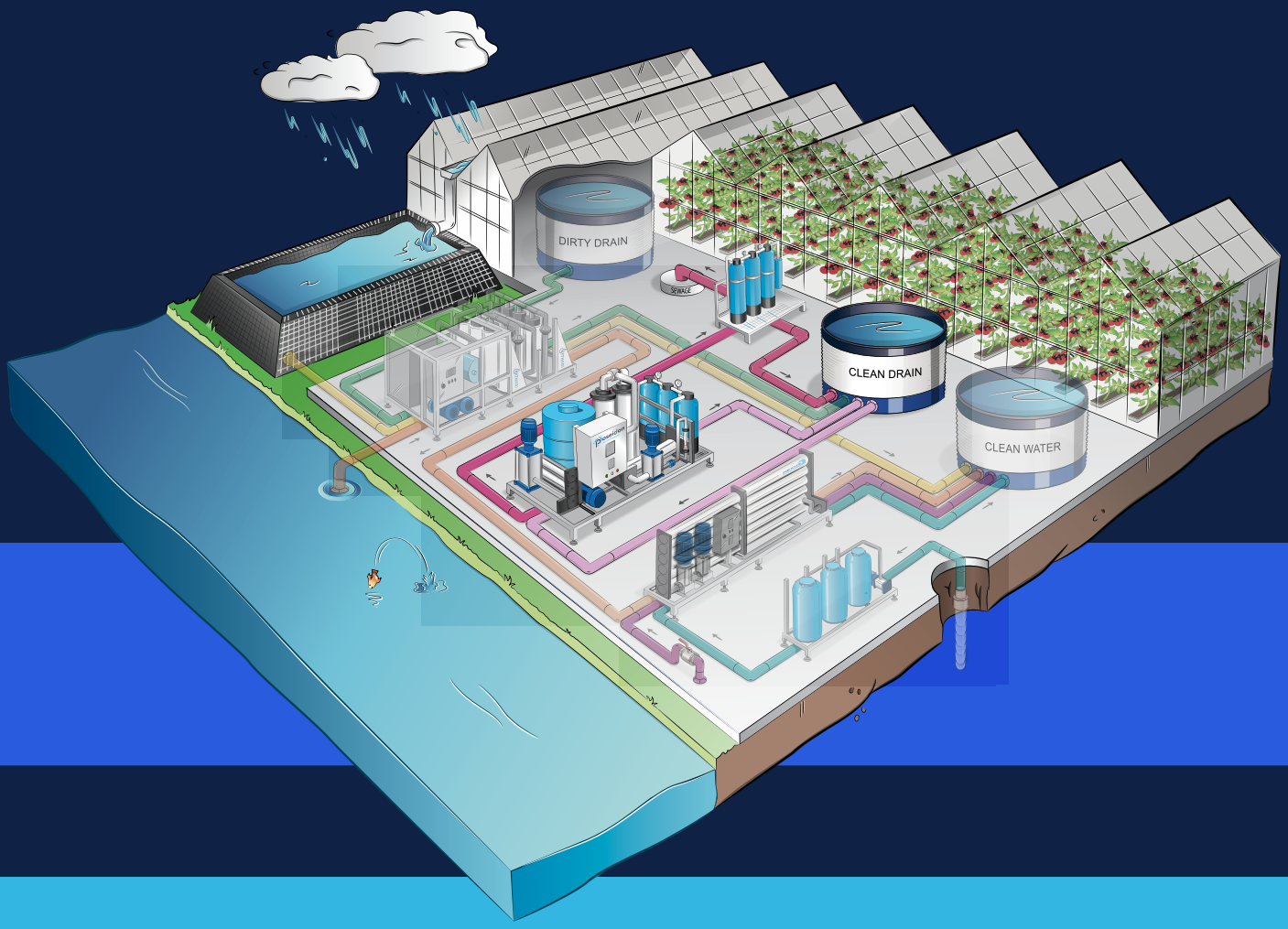
Ready for the future

The Poseidon water treatment system anticipates upcoming regulations and makes sure you are ready for the future.

To find out more about discharging sodium without losing nutrients, please contact our water treatment specialists via sales.filtration@vanderendegroup.com or +31 174 51 50 50.

Improving Your Business

Van der Ende Group is an innovator, manufacturer and supplier of technical solutions in the area of climate, water, fluid technology and filtration technology. We produce and supply a wide range of pumps, water treatment systems, frequency converters, accessories, fans and industrial filter systems. We provide specialist advice and technical services for horticulture, construction, industry and the public and semi-public sector. Our many innovative and often patented products are sold worldwide. **Check our website for more product information.**



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